

**To:** Riley, Gary[riley.gary@epa.gov]; Deschambault, Lynda[Deschambault.Lynda@epa.gov]  
**Cc:** Greg Reller[gr@burlesonconsulting.com]; Cory Koger[Cory.S.Koger@usace.army.mil];  
Wirtschafter, Joshua[Wirtschafter.Joshua@epa.gov]; Chang, Kay SPK[Kay.Chang@usace.army.mil];  
Wetmore, Cynthia[Wetmore.Cynthia@epa.gov]; Hillenbrand, John[Hillenbrand.John@epa.gov]; Doug  
Carey[douglas.carey@waterboards.ca.gov]; Barton, Dana[Barton.Dana@epa.gov]  
**From:** Brown, Anthony R (RM)  
**Sent:** Thur 6/15/2017 9:08:24 PM  
**Subject:** RE: EPA approval Crusher Road Slope Instability Monitoring Plan

Hi Gary, will get back to you on this ASAP. Tony...

**From:** Riley, Gary [mailto:riley.gary@epa.gov]  
**Sent:** Wednesday, June 14, 2017 2:59 PM  
**To:** Deschambault, Lynda; Brown, Anthony R (RM)  
**Cc:** Greg Reller; Cory Koger; Wirtschafter, Joshua; Chang, Kay SPK; Wetmore, Cynthia; Hillenbrand,  
John; Doug Carey; Barton, Dana  
**Subject:** RE: EPA approval Crusher Road Slope Instability Monitoring Plan

Hello Tony,

One clarification to Lynda's request: we are attempting to understand the most current degree of saturation of soils in and around the slide, in part to assess the ability to conduct the slope stabilization work in the near future. To that end, we are including in this request:

- A. the current water levels in the monitoring wells closest to the slide areas
- B. observations regarding the degree of saturation of shallow soils at the base of the slide. This should include personnel observing the ground surface in this area, and – if possible – digging a small test hole using hand equipment to a depth of up to 2 ft to examine the degree of saturation.

Thank you,

Gary

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Gary J. Riley, MSCE, P.E.

LT, U.S. Public Health Service

U.S. EPA Region 9, Superfund Division

[riley.gary@epa.gov](mailto:riley.gary@epa.gov) (415) 972-3003

**From:** Deschambault, Lynda

**Sent:** Wednesday, June 14, 2017 10:41 AM

**To:** Brown, Anthony R (RM) <[anthony.brown@bp.com](mailto:anthony.brown@bp.com)>

**Cc:** Greg Reller <[gr@burlesonconsulting.com](mailto:gr@burlesonconsulting.com)>; Cory Koger <[Cory.S.Koger@usace.army.mil](mailto:Cory.S.Koger@usace.army.mil)>; Wirschafter, Joshua <[Wirschafter.Joshua@epa.gov](mailto:Wirschafter.Joshua@epa.gov)>; Chang, Kay SPK <[Kay.Chang@usace.army.mil](mailto:Kay.Chang@usace.army.mil)>; Wetmore, Cynthia <[Wetmore.Cynthia@epa.gov](mailto:Wetmore.Cynthia@epa.gov)>; Hillenbrand, John <[Hillenbrand.John@epa.gov](mailto:Hillenbrand.John@epa.gov)>; Riley, Gary <[riley.gary@epa.gov](mailto:riley.gary@epa.gov)>; Doug Carey <[douglas.carey@waterboards.ca.gov](mailto:douglas.carey@waterboards.ca.gov)>; Barton, Dana <[Barton.Dana@epa.gov](mailto:Barton.Dana@epa.gov)>

**Subject:** Re: EPA approval Crusher Road Slope Instability Monitoring Plan

Dear Mr. Brown.

As you are aware, EPA is in receipt of the Water Board's proposal to undertake temporary slope repairs at the Pond 4 Slope Failure to stabilize the slope and restore use of the access road through the site. In your May 31, 2017 letter regarding the Crusher Road Slope Instability Monitoring Plan (below and attached); you noted that "Atlantic Richfield has offered to provide technical input and support to the Water Board to expedite its repairs, and we can share our monitoring results."

EPA requests that groundwater elevation data collected at the vicinity of the Crusher Road Slope Instability, and results of monitoring point surveys be provided to EPA and the waterboard within the next two days. These results are critical to EPA in determining the need for consultation with EPA Headquarters regarding slope repairs proposed by Water Board. Please also provide the water chemistry data for Monitoring wells 10S, 10D, 13, 14, and PZ 38. EPA understands that these results are likely to be provisional.

Please provide a spreadsheet summarizing each available data set (groundwater levels, monitoring point surveys) by June 16. I will be out of the office until July 12, The spreadsheets should be delivered to Gary Riley of US EPA with a cc to myself.

Best Regards,

Lynda Deschambault

Environmental Scientist

USEPA Region 09

(415) 947-4183

Please be advised I may have limited access to email , therefore please be patient with any communication delays.

**From:** Brown, Anthony R (RM) [<mailto:anthony.brown@bp.com>]

**Sent:** Wednesday, May 31, 2017 2:42 PM

**To:** Deschambault, Lynda <[Deschambault.Lynda@epa.gov](mailto:Deschambault.Lynda@epa.gov)>

**Cc:** Carey, Douglas@Waterboards <[douglas.carey@waterboards.ca.gov](mailto:douglas.carey@waterboards.ca.gov)>; Ferguson,

Scott@Waterboards ([scott.ferguson@waterboards.ca.gov](mailto:scott.ferguson@waterboards.ca.gov))  
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<[sriese@ensci-inc.com](mailto:sriese@ensci-inc.com)>  
**Subject:** EPA approval Crusher Road Slope Instability Monitoring Plan

Lynda – The attached letter responds to EPA’s May 24, 2017 letter concerning the “Crusher Road Slope Stability Monitoring Plan.”

Anthony R Brown

Operations Project Manager – Mining

Atlantic Richfield Company

Remediation Management

4 Centerpointe Drive, Suite 200

La Palma, California USA 90623

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**From:** Deschambault, Lynda [<mailto:Deschambault.Lynda@epa.gov>]

**Sent:** Wednesday, May 24, 2017 5:00 PM

**To:** Brown, Anthony R (RM)

**Cc:** Hillenbrand, John; Ferguson, Scott@Waterboards; Wetmore, Cynthia; Black, Ned; Cory Koger; Barton, Dana; Darrel Cruz 2; David Friedman; Doug Carey; Fred K; Riley, Gary; Greg Reller; Wirtschafter, Joshua; Ken Maas; Lombardi, Marc ([marc.lombardi@amecfw.com](mailto:marc.lombardi@amecfw.com)); Michelle Hochrein; Patty Cubanski; Serda, Sophia; Steve Hampton; Thomas Maurer; Toby McBride

**Subject:** EPA approval Crusher Road Slope Instability Monitoring Plan

Dear Mr. Brown:

EPA has completed its review of Atlantic Richfield Company's May 22, 2017 ARC memorandum describing a Crusher Road Slope Instability Monitoring Plan, Leviathan Mine Alpine County, California, dated May 22, 2017 (memo). The memo was addressed to Anthony Brown of ARC, and prepared by AMEC.

EPA has completed its review and approves ARC to begin the monitoring activities described in ARC's May 22, 2017 memo. In addition EPA provides comments for ARC implementation; including: ongoing Coordination with the Waterboard to address the impacts if any to water treatment operations (both ARC and Waterboard), identify short term mitigations to prevent a release; and make short and long term plans for stabilizing the slope. Please let EPA know if we can be of assistance in coordinating that response. In addition, EPA requests sampling of nearby wells, and an expansion of the scope of the assessment. See comments attached.

Please provide updates regarding the Crusher Road Slope Instability as part of ARC's monthly summary report. EPA also requests timely notification of any significant changes to the site.

If you have any questions, please feel free to contact me at (415) 972-3003 or [deschambault.lynda@epa.gov](mailto:deschambault.lynda@epa.gov).

Sincerely,

Lynda Deschambault

Environmental Scientist

USEPA Region 09

(415) 947-4183

**From:** Lombardi, Marc [<mailto:Marc.Lombardi@amecfw.com>]

**Sent:** Monday, May 22, 2017 12:41 PM

**To:** [DCarey@waterboards.ca.gov](mailto:DCarey@waterboards.ca.gov)

**Cc:** Chris Stetler ([chris.stetler@waterboards.ca.gov](mailto:chris.stetler@waterboards.ca.gov)) <[chris.stetler@waterboards.ca.gov](mailto:chris.stetler@waterboards.ca.gov)>;

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([gohland@ohlandhydrogeo.com](mailto:gohland@ohlandhydrogeo.com)) <[gohland@ohlandhydrogeo.com](mailto:gohland@ohlandhydrogeo.com)>  
**Subject:** Leviathan Mine - Crusher Road Slope Instability Monitoring Plan

Doug,

Attached is Atlantic Richfield's Monitoring Plan for the Crusher Road Slope Instability. Please let us know if the LRWQCB has any issues with us implementing this plan. We would like to begin installation of the survey points and initial monitoring as described in the plan on this Wednesday (5/24).

Please let me know if you have any questions.

Thanks,

Marc

**Marc R. Lombardi, CEM, PG**

Principal Geologist / Office Manager, Environment & Infrastructure Americas, Amec Foster Wheeler

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